IN THE CLAIMS:

Please cancel claims 3, 13, 14, 17, 28, 29, and 33 without prejudice.

Please amend claims 1, 4, 5, 7, 9, 12, 15, 16, 18-21, 32, 35, and 38 so that now pending claims 1, 2, 4-12, 15, 16, 18-27, 30-32, and 34-38 read as follows:

1. (Amended) For use in a semiconductor test system, a method for reducing variation in a voltage supplied to a power input terminal of a semiconductor device under test, said method comprising:

providing power through a probe card to said power input terminal of said semiconductor device under test;

sensing a temporary change in current drawn by said input terminal of said semiconductor device; and

providing supplemental current to said input terminal in response to said temporary change in current, said supplemental current compensating for said temporary change in current.

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2. The method of claim 1 further comprising changing a state of said semiconductor device, which causes said temporary change in current drawn by said input terminal of said semiconductor device.

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4. (Amended) The method of claim 1, wherein said sensing a temporary change in current drawn by said input terminal comprises sensing a change in current through a bypass capacitor in electrical communication with said power input terminal.

5. (Amended) The method of claim 1, wherein said sensing a temporary change in current drawn by said input terminal comprises sensing a change in current through a conductive path on said probe card that is in electrical communication with said power input terminal.

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6. The method of claim 1, wherein a quantity of said supplemental current corresponds to a quantity of current drawn by said input terminal.

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A3 7. (Amended) The method of claim 1, wherein said supplemental current is provided from an amplifier.

8. The method of claim 1, wherein said supplemental current is provided to said input terminal through a capacitor.

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A4 9. (Amended) The method of claim 1, wherein said supplemental current is provided by a supplemental current source disposed on said probe card.

10. The method of claim 1, wherein said probe card comprises a plurality of interconnected substrates.

11. The method of claim 10, wherein said plurality of interconnected substrates comprises a probe head.

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A5 12. (Amended) The method of claim 11, wherein said supplemental current is provided by a supplemental current source disposed on said probe head.

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A6 15. (Amended) The method of claim 1 further comprising:

providing power through said probe card to a power input terminal of each of a plurality of semiconductor devices under test;

sensing a temporary change in current drawn by each said input terminals of each of said semiconductor devices; and

providing supplemental current to each of said input terminals in response to said temporary changes in current, said supplemental current provided to each input terminals compensating for said temporary change in current drawn by said input terminal.

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16. (Amended) An apparatus for testing a semiconductor device comprising a power input terminal and signal terminals, said apparatus comprising:

a probe card comprising conductive connection structures for contacting said power input terminal and said signal terminals;

a current sensing device disposed to sense a temporary change in current drawn by said power input terminal; and

a supplemental current source having an output electrically connected to said connection structure for contacting said power input terminal, an input of said supplemental current source electrically connected to a signal corresponding to said temporary change in current drawn by said power input terminal, said supplemental current compensating for said temporary change in current.

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14 13
18. (Amended) The apparatus of claim 16, wherein said current sensing device comprises a current sense coupler.

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19. (Amended) The apparatus of claim 16, wherein said current sensing device comprises a current transformer.

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20. (Amended) The apparatus of claim 16, wherein said current sensing device is disposed to sense a change in current through a bypass capacitor in electrical communication with said power input terminal.

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21. (Amended) The apparatus of claim 16, wherein said current sensing device is disposed to sense a change in current through a conductive path on said probe card that is in electrical communication with said power input terminal.

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22. The apparatus of claim 16, wherein said supplemental current source comprises an amplifier.

23. The apparatus of claim 16, wherein said output of said supplemental current source is electrically connected to said power input terminal through a capacitor.

24. The apparatus of claim 16, wherein said supplemental current source is disposed on said probe card.

25. The apparatus of claim 24, wherein said probe card comprises a plurality of interconnected substrates.

26. The apparatus of claim 25, wherein said plurality of interconnected substrates comprises a probe head.

27. The apparatus of claim 26, wherein said supplemental current source is disposed on said probe head.

30. The apparatus of claim 16, wherein said apparatus tests a plurality of semiconductor devices.

31. The apparatus of claim 30, wherein said probe card provides power to input terminals of each of said plurality of semiconductor devices.

32. (Amended) An apparatus for testing a semiconductor device comprising a power input terminal and signal terminals, said apparatus comprising:

probe means for providing power to said input terminal and signals to at least one of said signal terminals;

current sensing means for sensing a temporary change in current drawn by said power input terminal; and

supplemental current means for providing supplemental current to said power input terminal in response to said temporary change in current drawn by said power input terminal, said supplemental current compensating for said temporary change in current.

34. The apparatus of claim 32, wherein said supplemental current means comprises an amplifier.

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35. (Amended) The apparatus of claim 32, wherein an output of said supplemental current means is electrically connected to said power input terminal through a capacitor.

36. The apparatus of claim 32, wherein said supplemental current means is disposed on said probe means.

37 (originally numbered 36). The apparatus of claim 32, wherein said apparatus tests a plurality of semiconductor devices.

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38 (originally numbered 37). (Amended) The apparatus of claim 37, wherein said probe means provides power to input terminals of each of said plurality of semiconductor devices.